

IN THE CLAIMS

Please **amend** claims 39 and 40 and **cancel** withdrawn claims 13-35 and claim 41 without prejudice as shown in the Status of the Claims, *infra*. Additions are underlined and deletions are struck through.

Claim 39 is amended to correct a misspelling and a typographic error, respectively, and not for reasons related to patentability. Claim 40 is amended to include the subject matter of claim 41, which is objected to but otherwise allowable. Amendment to claim 40 is made without the intention of surrendering the equivalents that would have been afforded to claim 41.

STATUS OF THE CLAIMS

Claim 1 (previously presented)

1. A cleaning apparatus comprising:

scrubbing means for scrubbing a first surface of an object to be cleaned; and  
ultrasonic wave projection means for supplying an aqueous cleaning agent  
against a second surface of the object to be cleaned and generating an ultrasonic  
wave,

wherein the first surface and the second surface are disposed on opposing sides  
of the object to be cleaned so that the object to be cleaned is between said scrubbing  
means and said ultrasonic wave projection means, so that the scrubbing means is in  
registration with the first surface of the object to be cleaned and the ultrasonic wave  
projection means is in registration with the second surface of the object to be cleaned,

wherein the first surface of the object to be cleaned is simultaneously cleaned  
by the scrubbing means and by the ultrasonic wave generated by the ultrasonic wave  
projection means that has propagated from the first surface, through the object to be  
cleaned to the second surface.

Claim 2 (original)

2. The cleaning apparatus as set forth in claim 1, further comprising:

cleaning agent supply means for supplying an aqueous cleaning agent onto the  
first surface of the object to be cleaned.

Claim 3 (original)

3. The cleaning apparatus as set forth in claim 1, further comprising:

transport means for transporting the object to be cleaned.

Claim 4 (original)

4. The cleaning apparatus as set forth in claim 1, wherein:  
said scrubbing means is a cleaning brush.

Claim 5 (original)

5. The cleaning apparatus as set forth in claim 4, wherein:  
said cleaning brush is a roll brush.

Claim 6 (original)

6. The cleaning apparatus as set forth in claim 4, wherein:  
said cleaning brush is a disk brush.

Claim 7 (original)

7. The cleaning apparatus as set forth in claim 1, wherein:  
said ultrasonic wave projection means is an ultrasonic nozzle for blowing the  
cleaning agent and generating an ultrasonic wave.

Claim 8 (original)

8. The cleaning apparatus as set forth in claim 2, wherein:  
said cleaning agent supply means is a spray for radially spraying the aqueous  
cleaning agent.

Claim 9 (original)

9. The cleaning apparatus as set forth in claim 1, wherein:  
said ultrasonic wave is megasonic in a frequency band within a range of from  
850 kHz to 1 MHz.

Claim 10 (previously presented)

10. The cleaning apparatus as set forth in claim 1, wherein:  
said aqueous cleaning agent is at least one of pure water, superpure water,  
hydrogen water, ozone water, dilute hydrofluoric acid, and aqueous surface active  
agent.

Claim 11 (previously presented)

11. The cleaning apparatus as set forth in claim 3, wherein:  
said transport means is transport rollers.

Claim 12 (original)

12. The cleaning apparatus as set forth in claim 3, wherein:  
said transport means is a belt conveyer.

Claims 13-36 (canceled)

Claim 37 (original)

37. The cleaning apparatus as set forth in claim 1, further comprising:  
a reverse mechanism for turning over the object to be cleaned.

Claim 38 (original)

38. The cleaning apparatus as set forth in claim 1, further comprising:  
a rotation mechanism for rotating the object to be cleaned.

Claim 39 (currently amended)

39. (Amended) The cleaning apparatus as set forth in claim 38, wherein:  
said rotation mechanism rotates the object to be cleaned about a rotation axis  
vertical to the object while supporting it-its peripheral portion.

Claim 40 (currently amended)

40. (Amended) A cleaning apparatus comprising:  
scrubbing means for scrubbing a first surface of an object to be cleaned; and  
ultrasonic wave projection means for supplying an aqueous cleaning agent  
against a second surface of the object to be cleaned and generating an ultrasonic  
wave,

wherein the first surface and the second surface are disposed on opposing sides  
of the object to be cleaned so that the object to be cleaned is between said scrubbing  
means and said ultrasonic wave projection means, so that the scrubbing means is in  
registration with the first surface of the object to be cleaned and the ultrasonic wave  
projection means is in registration with the second surface of the object to be cleaned;

wherein the first surface of the object to be cleaned is simultaneously cleaned  
by the scrubbing means and by the ultrasonic wave generated by the ultrasonic wave  
projection means that has propagated from the first surface, through the object to be  
cleaned to the second surface; and

wherein the object to be cleaned is not immersed or submerged in a cleaning  
solution.

Claim 41 (canceled)

Claim 42 (previously presented)

42. The cleaning apparatus as set forth in claim 40, further comprising:  
cleaning agent supply means for supplying an aqueous cleaning agent onto the  
first surface of the object to be cleaned.

Claim 43 (previously presented)

43. The cleaning apparatus as set forth in claim 40, further comprising:  
transport means for transporting the object to be cleaned.

Claim 44 (previously presented)

44. The cleaning apparatus as set forth in claim 40, wherein:  
said scrubbing means is a cleaning brush.

Claim 45 (previously presented)

45. The cleaning apparatus as set forth in claim 44, wherein:  
said cleaning brush is a roll brush.

Claim 46 (previously presented)

46. The cleaning apparatus as set forth in claim 44, wherein:  
said cleaning brush is a disk brush.

Claim 47 (previously presented)

47. The cleaning apparatus as set forth in claim 40, wherein:  
said ultrasonic wave projection means is an ultrasonic nozzle for blowing the cleaning agent and generating an ultrasonic wave.

Claim 48 (previously presented)

48. The cleaning apparatus as set forth in claim 40, wherein:  
said cleaning agent supply means is a spray for radially spraying the aqueous cleaning agent.

Claim 49 (previously presented)

49. The cleaning apparatus as set forth in claim 40, wherein:  
said ultrasonic wave is megasonic in a frequency band within a range of from 850 kHz to 1 MHz.

Claim 50 (previously presented)

50. The cleaning apparatus as set forth in claim 40, wherein:  
said aqueous cleaning agent is at least one of pure water, superpure water, hydrogen water, ozone water, dilute hydrofluoric acid, and aqueous surface active agent.

Claim 51 (previously presented)

51. The cleaning apparatus as set forth in claim 43, wherein:  
said transport means is transport rollers.

Claim 52 (previously presented)

52. The cleaning apparatus as set forth in claim 43, wherein:  
said transport means is a belt conveyer.